Title (en)

ALUMINOSILICATE GLASSES WITH HIGH FRACTURE TOUGHNESS

Title (de)

ALUMINOSILIKATGLÄSER MIT HOHER BRUCHZÄHIGKEIT

Title (fr)

VERRES D'ALUMINOSILICATE À TÉNACITÉ À LA RUPTURE ÉLEVÉE

Publication

EP 4065526 A1 20221005 (EN)

Application

EP 20825311 A 20201120

Priority

- US 201962940307 P 20191126
- US 2020061432 W 20201120

Abstract (en)

[origin: US2021155528A1] A glass composition includes: Si2O, greater than 15 mol % to less than or equal to 32 mol % Al2O3, B2O3, K2O, MgO, Na2O, and Li2O. The glass composition may have a fracture toughness of greater than or equal 0.75 MPa√m and a Young's modulus of greater than or equal to 80 GPa to less than or equal to 120 GPa. The glass composition is chemically strengthenable. The glass composition may be used in a glass article or a consumer electronic product.

IPC 8 full level

C03C 3/064 (2006.01); **C03C 3/091** (2006.01); **C03C 21/00** (2006.01)

CPC (source: EP KR US)

C03C 3/064 (2013.01 - EP KR US); **C03C 3/091** (2013.01 - EP KR US); **C03C 4/18** (2013.01 - US); **C03C 21/002** (2013.01 - EP KR US); C03C 2204/00 (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

US 11680008 B2 20230620; **US 2021155528 A1 20210527**; CN 114728835 A 20220708; CN 114728835 B 20240409; EP 4065526 A1 20221005; JP 2023503878 A 20230201; KR 20220108071 A 20220802; TW 202124308 A 20210701; WO 2021108236 A1 20210603

DOCDB simple family (application)

US 202017100172 A 20201120; CN 202080081617 A 20201120; EP 20825311 A 20201120; JP 2022529312 A 20201120; KR 20227019192 A 20201120; TW 109139866 A 20201116; US 2020061432 W 20201120